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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/143,583	08/31/1998	CHARLES EDWARD BOWERS	30-2138CIP2	3710

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EXAMINER	
YAO, SAMCHUAN CUA	
ART UNIT	**PAPER NUMBER**
1733	

DATE MAILED 01/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/143,583	BOWERS, CHARLES EDWARD
	Examiner	Art Unit
	Sam Chuan C. Yao	1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *4-13* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 14-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
4) ☐ Interview Summary (PTO-413) Paper No(s) _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Queen et al (US 5,567,256) in view of (Stahlecker et al (US 4,484,433) **or** Nomura et al (US 5,611,819), Scott (US 4,668,552) and GB 2,205,116 A.

With respect to claims 1 and 15, Queen et al discloses a process of making blended yarns for carpet rugs, the process comprises spinning 70-90% of cotton fibers and 30-10% of heat-activated polyester binder fibers to form blended yarns, ply twisting the blended yarns; and then heat-setting the ply twisted yarns at a temperature of about 275 °F (i.e. 135 °C) to melt the binder fibers *"so that the cotton fibers are impregnated, reinforced and strengthened"* by the fibers (abstract; col. 1 line 48 to col. 3 line 4; claim 1; figure 1). Although not explicitly disclosed, it is understood that, a bundle or a sliver of cotton fibers is fed into a spinning station. In any event, such would have been obvious in the art as such is

conventional in the art of forming yarn by spinning. Moreover, reading the Queen et al patent as a whole, one in the art would have reasonably understood that, the cotton fibers and heat-activated binder fibers are separately fed into a spinning device (i.e. blending is performed at a yarn level) as evidence from figure 1 and passages in column 1 lines 50-52 and column 2 lines 51-54. Queen et al differs from claims 1 and 15, in that, Queen does not expressly disclose the type of spinning technique which is used in making a blended yarn. In particular, Queen et al does not expressly disclosed using either a ring-spinning or wrap spinning method in forming a blended yarn. However, it would have been obvious in the art to use either a ring-spinning or wrap spinning technique in making a blended yarn taught by Queen et al, because: a) it is conventional in the art to make yarns by either ring spinning method or wrap spinning method; b) it is known in the art of making yarn to form a blended or mixed yarn by wrap or ring spinning method as disclosed for example by Stahlecker et al '433 (col. 2 lines 3-11; col. 3 lines 40-43; figure 2) **or** Nomura et al (col. 7 line 63 to col. 8 line 12); and c) it is well known in the art to **wrap-spin** and heat-activate a blend of heat-activated binder-fibers and base fibers to stabilize a blended carpet yarn thereby *"improving the tuft definition and appearance retention"* as exemplified in the teachings of GB '116 (abstract; page 6 full paragraph 1; claim 1).

With respect to claim 3, it is conventional in the art to form bundles of staple cotton fibers by spinning them together.

As for an added limitation of a second fiber being wrapped around a bundle of a first base, such would naturally flow from the teachings of Queen et al where a blended yarn is form by wrap spinning a bundle of cotton base fibers and binder fibers. In any event, it would have been obvious in the art to wrap spin binder fibers around a bundle of cotton base fibers in forming a blended yarn, because it is old in the art to form a blended carpet yarn where heat-activated binder fibers are wrapped around a bundle of base fibers.

As for an added limitation of a binder material encapsulating a first base fiber as the binder material flows to intersection points with a first base fibers thereby retaining the twist in a blended yarn, such would naturally flow from a wrap spun blended yarn of Queen et al, because heat melted binder fibers which are wrapped around a bundle of cotton base fibers would naturally flow to intersection points with a first base fibers thereby retaining the twist in a blended yarn.

3. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references set forth in numbered paragraph 2 above as applied to claim 1, and further in view of Lofquist (US 5,478,624).

It would have been obvious in the art to substitute the polyester binder fibers suggested by Queen et al (US 5,567,256) with a nylon6/nylon 66

copolymer binder fibers, because Lofquist teaches using a nylon6/nylon 66 copolymer binder fibers in forming a blended carpet yarn since the copolymer binder is the *"most attractive from a standpoint of both economics and efficacy"* (col. 4 lines 42-59).

4. Claims 1-3 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stahlecker et al (US 4,495,758) in view of Lofquist (US 5,478,624), Queen et al (US 5,567,256), GB 2,205,116 A, and Scott (US 4,668,552).

Stahlecker et al '758 discloses a process of making wrapped yarns, the process comprises wrap spinning a binder strand and a yarn sliver together to spirally wrap the binder strand around the yarn sliver (col. 1 lines 9-40; abstract).

It is unclear whether the binder strand taught by Stahlecker et al and the binder strand of related arts disclosed in the background of the invention are heat-activated adhesive. In any event, it would have been obvious in the art to use a heat-activated binder strand in making carpet yarns in a the process taught by Stahlecker et al '758 because: a) GB '116 discloses spinning such as **wrap-spinning** and heat-activating a blend of binder-fibers containing heat-activated adhesive and base fibers to stabilize a blended carpet yarn thereby *"improving the tuft definition and appearance retention"* (abstract; page 6 full paragraph 1; claim 1); b) Queen et al discloses making yarns for carpet rugs by spinning cotton fibers and heat-activated binder fibers to form blended yarns, ply twisting the blended yarns and then heat-setting the ply twisted yarns to melt the binder

fibers *"so that the cotton fibers are impregnated, reinforced and strengthened"* by the fibers (abstract; col. 1 line 48 to col. 3 line 4; claim 1; figure 1); and c) it is old in the carpet art to form a yarn by spirally wrapping heat-activated binder fibers around base fibers using **wrap-spinning** technique as exemplified in the teachings of Scott (col. 2 lines 60-65; col. 6 lines 52-68; figures 3-4 and 8-9; and, figure 3 of Counsel's characterization of Scott in Paper No. 23). Note: Scott also discloses the advantage of enhancing *"the integrity of the fabric"* in using heat-activated binder fibers in forming a blended wrap yarn (col. 2 lines 60-65).

Stahlecker et al '758 does not teach twisting two or more yarns to form a plied yarn and then heat-setting the plied yarn. However, it would have been obvious in the art, motivated by the desired to apply the yarn making process of Stahlecker et al to form carpet yarns, to twist two or more yarns to form a plied yarn and then to heat-set the plied yarn as such is conventional in the art of making carpet yarns as evidence from the teachings of Lofquist (col. 1 62 to col. 2 line 13) in order to obtain the desired carpet yarn bulk. Note: as noted above, Queen et al also teaches twisting two or more yarns to form a plied yarn and then heat-setting the plied yarn.

The process of Stahlecker '758 and the related art are silent on the composition of the binder relative to the yarn sliver. However, such would have been obvious in the art because Lofquist discloses the desirability of blending 1-12 weight per cent of binder strand to a base yarn to form a carpet yarn (col. 2 lines 28-58); because Scott discloses spirally wrapping about 3-10 weight per

cent (based on the total weight of the yarn) of binder strand around a base strand (claims 2 and 6); and, because one in the art would have determined a workable composition of a blended yarn for the desired end-use of the article. As for the steps of heating to melt the binder around the yarn and cooling to harden the binder, such would have been obvious in the art as such is conventional in the art as taught by Scott and Lofquist.

As for the added limitations, for the same reasons set forth in numbered paragraph 2 above, these limitations would naturally flow from the teachings of Stahlecker '758.

With respect to claims 2-3, 14-16 and 17-20, see column 3 line 13 to column 4 line 59 of the Lofquist patent.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-3 and 14-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over all claims in U.S. Patent No. 6,682,618 in view of Queen (US 5,567,256) or Lofquist (US 5,478,624).

It would have been obvious in the art to perform the process in recited in step c in claim 1 of the present application as such is well known in the blended carpet yarn making art as exemplified in the teachings of either Queen or Lofquist.

Response to Arguments

6. Applicant's arguments filed on 12-15-03 have been fully considered but they are not persuasive.

With respect to Counsel's arguments regarding the number of references, it should be noted at the outset that, the only critical difference between claim 1 and the process of Queen et al is that, Queen et al is silent on a particular spinning technique (i.e. a ring or wrap spinning technique) in forming a blended yarn. Stachlecker et al and Nomura et al, which are used in an alternative form, are cited as evidence to show that it is well known in the art to form a blended yarn using a wrap or ring spinning technique. Equally important, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

Counsel further argues that, *"Stahlecker, et al shows wrapping a binder fiber around a yarn rather than a bundle of a base fiber."* (yarn was originally

italicized). It is respectfully submitted that, a bundle of base fiber reads on a yarn. As for Counsel's argument that, there is no suggestion a binder fiber being a heat-activated binder fiber, examiner agrees that such is not expressly suggested by Stahlecker et al. However, as noted above, such would have been obvious in the art for reasons set forth in numbered paragraph 4 above. As for Counsel's arguments on page 8 1st paragraph regarding the various references applied, it would appear that Counsel's is resorting to piecemeal analysis of the references applied. What is critical on the issue of patentability under 35 U.S.C. 103(a) is "what would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the sum of all the relevant teachings in the art, not in view of the first one and then another of the isolated teachings in the art." In re Kuderna, 165 USPQ 575 (CCPA 1970).

With respect to Counsel's argument on page 8 2nd paragraph regarding the Lofquist patent (filed on 2-14-95), an exclusion of commonly owned or assigned prior art under 35 USC 103 (c) filed after 11-29-1999 does not apply to **RCE application**. More important, this application is a CIP of 08/933,822 which in turn is also a CIP of 08/792,819. Therefore, it would appear that, the effective filing date of this application is the filing date of 08-31-98. Note: MPEP 2133.01 states that "When applicant files a continuation-in part whose claims are not supported by the parent application, the effective filing date is the child CIP. Any prior art disclosing the invention or an obvious variant thereof having a critical reference date more than 1 year prior to the filing date of the child will bar the issuance of a

patent under 35 U.S.C. 102(b). Paperless Accounting v. Bay Area Rapid Transit System, 804 F2d 659, 665, 231 USPQ 649, 653 (Fed. Cir. 1986)." (Emphasis added).

With respect to Counsel's argument on page 8 3rd paragraph, Examiner agrees with Counsel that, when each of the references is applied in isolation, *"the particular sequence and combination of claimed steps is not known in the art"*. That's precisely the reason why the claims were rejected under 35 USC 103 instead of 35 USC 102. It is respectively submitted, contrary to Counsel's assertion, the recited combination of process steps would have been obvious in the art in light of the collective teachings of the prior art for reasons set forth above.

With respect to Counsel's assertion on page 9 full paragraph 1 that *"... Examiner is looking beyond the teachings of the references."*, Examiner strongly disagrees. It is suggested for Counsel to particularly point out where in the Examiner's office action under which references are applied beyond what are taught.

As for Counsel's argument on page 10 full paragraph 2 regarding an obvious type double patenting, Examiner agrees that the scope between the two applications are different. However, the process step "c" would have been obvious in the art as such is well known in the art. See for instance the teachings of Lofquist or Queen et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

Scy
01-12-04